In spite of such warnings, the human rights campaign still continues. Following the arrest of Borisov, a group of eighteen Moscow dissidents has called for a renewed campaign against the political abuse of psychiatry. In Kiev, a 'Helsinki monitoring group' has been set up, similar to that set up earlier this year in Moscow; its members include Nina Strokata-Karavans'ka, a microbiologist, and the science-fiction writer Mykola Rudenko. □

USA

• President Ford's final budget, which is expected to be delivered to Congress on January 17 (just three days before his successor is inaugurated), will promise large increases in funds for research and development and propose that the green light be given to several important and eagerly-awaited scientific projects. Though it's possible that the whole budget document could be turfed out by the incoming Carter Administration, Mr Carter will have more pressing matters on his mind than tinkering with the nuts and bolts of the federal government's science programmes; it is therefore likely that some of Mr Ford's lame-duck proposals will survive more or less intact.

The rough outline of the proposed budget for research and development was sketched out last month by Guy Stever, the President's science adviser, who is also about to leave the government. Stever called a press conference after meeting to discuss the budget with Mr Ford, a number of prominent people from the scientific community and government officials from science agencies. He announced that Ford will propose that basic research be given a real increase, amounting to about 3% above the rate of inflation, in the fiscal year which begins on October 1, 1977, and that some of the increase would be spent on new projects in agricultural research, space science and earthquake prediction.

Following the pattern established in his two previous budgets, President Ford will propose particularly large increases in military science and technology and energy research and development. The proposed increase in military science alone will amount to about 15%, Stever said. Carter will take a close look at both those two areas, however, and Ford's proposals should therefore be taken with more than a pinch of salt.

As for space science, the proposed budget will contain some good news for astronomers and planetary scientists. Last year, in an effort to reduce public expenditure, the Ford Administration stripped about $200 million from the budget of the National Aeronautics and Space Administration shortly before it was sent to Congress, and NASA was consequently forced to defer plans to build the Large Space Telescope (LST) and to start work on a spacecraft to orbit Jupiter. Those funds will be reinstated in this year's budget, however, and if approved by the Congress and by the Carter Administration, the LST should be ready for launch in the early 1980s and the Jupiter mission will be launched in 1981. Both missions rank high on the list of priorities for space research drawn up by the National Academy of Sciences.

Another space project which Ford will approve is construction of a fourth satellite in the Earth Resources Technology Satellite series, called Landsat-D. The Landsat programme has consistently received strong support from Congress, and Ford's proposals will probably be accepted.

The lame-duck budget will also include a large helping of money for earthquake research, another area in which Congress has taken an interest. President Ford will propose that funds for earthquake monitoring and prediction be doubled in the next fiscal year, to reach about $50 million. The money would be divided between the US Geological Survey, which operates a number of seismic stations and research establishments in California, and the National Science Foundation. No details are available of the projects which will benefit from this largesse, however.

Finally, in agricultural research, President Ford has decided to implement a proposal which has been advanced by three committees of the National Academy of Sciences and by two committees of the House of Representatives. He will propose the initiation of a new programme of competitive grants, funded through the Department of Agriculture, for basic research related to agriculture. The new programme, which would receive about $35 million next year under Ford's proposal, will complement rather than replace the Agriculture Department's traditional block grant system for agricultural research.

Usually, budget details are not released until the proposals are sent to Congress, but in this case, the tradition was broken presumably because the figures for research and development look good. Since Guy Stever and the Office of Science and Technology Policy can claim a good deal of the credit, they were understandably keen to get the word out before Stever departs.

• The National Academy of Sciences has finally added its voice to the chorus of criticism directed at the so-called 'hot particle' theory. Put forward in 1974 by Drs Thomas Cochran and Arthur Tamplin, staff scientists at the Natural Resources Defense Council, the theory is that tiny particles of inhaled plutonium may lodge in the lung and deliver a prolonged, intense dose of radioactivity to a small area of surrounding tissue, thereby posing a severe cancer hazard. NRDC argued that since present plutonium exposure standards are based on average doses of radioactivity to the entire lung, they underestimate the health hazards and should be tightened by a factor of about 115,000. Such strict standards would present a problem for reprocessing and plutonium fabrication plants.

In a report published last month, however, an Academy committee concludes that the evidence doesn't support the hot particle theory and that there is no need to lower plutonium exposure standards. The committee, which examined the theory under contract to the Environmental Protection Agency, looked at the results of tests on beagle dogs and concluded that the observed incidence of cancer doesn't fit in with the hot particle theory, and suggested that it "can adequately be accounted for by averaging the absorbed alpha radiation dose over the whole lung." The committee also argues that epidemiological evidence from experience with inhaled alpha-emitting particles suggests that the usual method of applying an average radiation dose to the whole lung to predict carcinogenic effects.

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